

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) A binder composition for a non-woven fabric, the binder composition comprising:

a latex, the latex including a heterogeneous blend of dispersed polymer particles and a surfactant, where the particles include from about 55 to about 100% by weight of a gelled polymer, from about 6 to about 11% by weight polymeric units bearing an acid functionality, and from about 35 to about 45% by weight units deriving from styrene, and where dried films of the latex exhibit a Tg of from about -50°C to about 60°C.
2. (Currently Amended) The binder composition of claim 1, where the polymer particles include from about 80 to about 93% by weight of a gelled polymer, where the polymer particles include from about [[4]]7 to about 11% by weight polymeric units bearing an acid functionality, and where dried films of the latex exhibit a Tg of from about -35°C to about 35°C.
3. (Previously Presented) The binder composition of claims 1, where the polymeric units bearing an acid functionality derive from acrylic acid, methacrylic acid, itaconic acid, or mixtures thereof, and where the polymeric units bearing an acid functionality comprise from about 0 to about 3% by weight units deriving from itaconic acid, from about 2 to about 7% by weight units deriving from acrylic acid, and from about 1 to about 6% by weight units deriving from methacrylic acid.
4. (Original) The binder composition of claim 1, where the surfactant includes an alkali metal salt of an alkyl sulfosuccinate, sodium dodecyl diphenyloxide disulfonate, disodium stearyl sulfosuccinamate, or mixtures thereof.

5. (Original) The binder composition of claim 1, where the surfactant includes from about 50 to about 99% by weight sodium dihexyl sulfosuccinate compounds and from about 1 to about 50% by weight sodium dioctyl sulfosuccinate compounds.

6. (Cancelled)

7. (Original) A non-woven fabric bound with the binder composition of claim 1.

8. (Original) A diaper sub-layer comprising a non-woven fabric bound with the binder composition of claim 1.

9. (Previously Presented) The binder composition of claim 2, where the polymeric units bearing an acid functionality derive from acrylic acid, methacrylic acid, itaconic acid, or mixtures thereof, and where the polymeric units bearing an acid functionality comprise from about 0 to about 3% by weight units deriving from itaconic acid, from about 2 to about 7% by weight units deriving from acrylic acid, and from about 1 to about 6% by weight units deriving from methacrylic acid.

10. (Currently Amended) The binder composition of claim 1, where the polymer particles include from about 80 to about 93% by weight of a gelled polymer, where the polymer particles include from about [[4]] 7 to about 11% by weight polymeric units bearing an acid functionality, and where dried films of the latex exhibit a Tg of from about -25°C to about 25°C.

11. (Previously Presented) The binder composition of claim 1, where the latex comprises from about 0.44 to about 0.48 % by weight surfactant, based upon the total weight of monomer.

12. (Previously Presented) The binder composition of claim 1, where the latex comprises 6 to about 11 % by weight polymeric units bearing an acid functionality.

13. (Currently Amended) The binder composition of claim 1, where the particles include from about 2.5 to about 5 % by weight polymeric units derived from methacrylic acid, from about 1 to about 2 % by weight polymeric units derived from itaconic acid, and from about 2.5 to about 5 % by weight units derived from acrylic acid.

14. (Currently Amended) The binder composition of claim 1, where the particles include from about 2 to about 6 % by weight polymeric units derived from methacrylic acid, from about 0.5 to about 3 % by weight polymeric units derived from itaconic acid, and from about 2 to about 6 % by weight units derived from acrylic acid.

15. (New) A binder composition for a non-woven fabric, the binder composition comprising:

a latex, the latex including a heterogeneous blend of dispersed polymer particles and a surfactant, the polymer particles having monomeric units consisting essentially of units derived from at least one soft monomer, at least one acidic monomer, and styrene, where said polymer particles include from about 55 to about 100% by weight of a gelled polymer, from about 6 to about 11% by weight polymeric units bearing an acid functionality, and from about 35 to about 45% by weight units deriving from styrene, and where dried films of the latex exhibit a Tg of from about -50°C to about 60°C.

16. (New) The binder composition of claim 15, where said monomeric units consist essentially of units derived from 1,3-butadiene, styrene, methacrylic acid, acrylic acid, and optionally itaconic acid.

17. (New) The binder composition of claim 16, where the polymer particles include from about 40 to about 65% by weight monomeric units deriving from 1,3-butadiene, from about 25 to about 65% by weight monomeric units deriving from styrene, from about 1 to about 7% by weight monomeric units deriving from methacrylic acid, and from about 1 to about

7% by weight monomeric units deriving from acrylic acid, based on the entire weight of the particle.

18. (New) The binder composition of claim 16, where the polymer particles include from about 45 to about 60% by weight monomeric units deriving from 1,3-butadiene, from about 35 to about 45% by weight monomeric units deriving from styrene, from about 2 to about 6% by weight monomeric units deriving from monomeric units deriving from methacrylic acid, from about 0.5 to about 3% by weight monomeric units deriving from itaconic acid, and from about 2 to about 6% by weight monomeric units deriving from acrylic acid, based on the entire weight of the particle.

19. (New) The binder composition of claim 16, where the polymer particles include from about 48 to about 58% by weight monomeric units deriving from 1,3-butadiene, from about 37 to about 43% by weight monomeric units deriving from styrene, from about 2.5 to about 5.0% by weight monomeric units deriving from monomeric units deriving from methacrylic acid, from about 1 to about 2% by weight monomeric units deriving from itaconic acid, and from about 2.5 to about 5.0% by weight monomeric units deriving from acrylic acid, based on the entire weight of the particle.